

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

SYNGENTA SEEDS, INC., )  
Plaintiff, )  
v. ) Civ. No. 02-1331-SLR  
MONSANTO COMPANY, DEKALB )  
GENETICS CORP., PIONEER HI- )  
BRED INTERNATIONAL, INC., )  
DOW AGROSCIENCES, LLC, and )  
MYCOGEN PLANT SCIENCE, INC. )  
and AGRIGENETICS, INC., )  
collectively d.b.a. MYCOGEN )  
SEEDS, )  
Defendants. )

Paul M. Lukoff, Esquire, David E. Brand, Esquire of Prickett, Jones & Elliott, Wilmington, Delaware. Counsel for Plaintiff. Of Counsel: Dimitrios T. Drivas, Esquire, Alan Tenenbaum, Esquire, Michael S. Shuster, Esquire, John P. Scheibeler, Esquire, Jean E. Shimotake, Esquire, Catherine C. Lacavera, Esquire, Daren M. Orzechowski, Esquire, Adam R. Gahtan, Esquire, Paul E. Godinez, Esquire, Stephen J. Vitola, Esquire, David G. Hille, Esquire, Christopher J. Glancy of White & Case, New York, New York.

Richard L. Horwitz, Esquire, David E. Moore, Esquire of Potter Anderson & Corroon, Wilmington, Delaware. Counsel for Defendants. Of Counsel for Defendants Dow Agrosciences, Mycogen Plant and Agrigenetics: Daniel J. Thomasch, Esquire, Robert M. Isackson, Esquire, Craig R. Kaufman, Esquire, Alex V. Chachkes, Esquire, Mihaela L. Grigore, Esquire, Veronica Mullally, Esquire of Orrick, Herrington & Sutcliffe, New York, New York, Elizabeth A. Howard, Esquire, Craig Kaufman, Esquire of Orrick, Herrington & Sutcliffe, Menlo Park, California. Of Counsel for Monsanto and DeKalb Genetics: Susan K. Knoll, Esquire, Melinda L. Patterson, Esquire, Thomas A. Miller, Esquire, John F. Lynch, Esquire, Steven G. Spears, Esquire of Howrey Simon, Arnold & White, Houston, Texas. Of Counsel for Defendant Pioneer Hi-Bred: Leora Ben-Ami, Esquire, Thomas F. Fleming, Esquire, Christopher T. Jagoe, Esquire of Kaye Scholer, New York, New York.

**OPINION**

Dated: December 8 , 2005  
Wilmington, Delaware



ROBINSON, Chief Judge

## I. INTRODUCTION

The court tried the single issue of inequitable conduct by Syngenta Seeds, Inc. ("Syngenta") in a bench trial on April 12, 2005. The court has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331, 1338(a) and 2201(a). Having considered the documentary evidence and testimony, the court makes the following findings of fact and conclusions of law pursuant to Fed. R. Civ. P. 52(a).

## II. FINDINGS OF FACT AND CONCLUSIONS OF LAW

### A. Procedural History

1. On July 25, 2002, Syngenta filed this action alleging Monsanto Company, DeKalb Genetics Corp, Dow Agrosciences, LLC and Mycogen Plant Science Inc. and Agrigenetics, Inc. (collectively called "defendants") sold certain Bt corn products infringing U.S. Patent Nos. 6,403,865 (the "'865 patent"), 6,075,185 (the "'185 patent"), and 6,320,100 (the "'100 patent"). This case was tried to a jury from November 29, 2004 through December 10, 2004. On December 9, 2004, the court granted defendants' motion as a matter of law that the asserted claims of the '100 patent and '185 patent were not infringed.

2. The '865 patent claims at issue for the jury were: claim 11, depending from claim 1; claim 19, depending from claims 11 and 1 (claim "19/11"); claim 19, depending from claims 16 and

1 (claim "19/16"); claim 20, depending from claims 11 and 1  
(claim "20/11"); claim 20, depending from claims 16 and 1 (claim  
"20/16"); and claim 21, depending from claim 1.

3. On December 14, 2004, the jury returned a verdict, finding that: (1) the asserted claims were infringed by defendants' MON810 YieldGard Bt corn, Herculex 1 Bt corn, and TC6275 non-commercial Bt corn; (2) claims 19/16, 20/16 and 21/1 were invalid as anticipated by the Lundquist patent, the prior invention of Monsanto scientists, and the prior invention of Bt11 by Sandoz; (3) the asserted claims were invalid as obvious in view of the prior art; (4) asserted claims 11, 19/11 and 20/11 were invalid for failure to comply with the written description requirement of 35 U.S.C. § 112, ¶ 1; (5) claims 19/16, 20/16 and 21 were not invalid for failure to comply with the written description requirement of 35 U.S.C. § 112, ¶ 1; and (6) claims 19/16, 20/16 and 21 were not invalid as indefinite. (D.I. 487 at 1-8)

4. Following the jury trial, the court held a bench trial regarding defendants' inequitable conduct defenses. Monsanto was the only defendant to continue with the defense of inequitable conduct (hereinafter referred to as "Monsanto").

#### **B. Technology and Past Litigation**

5. The patents relate generally to fertile transgenic corn plants that express a gene encoding a *Bacillus thuringiensis*

(Bt) insecticidal protein so as to cause mortality to European corn borers ("ECB"). (D.I. 293 at 2)

6. Bt is a soil bacteria that produces proteins toxic to certain insect pests, but is not harmful to humans. (D.I. 303 at 1) For many years, farmers sprayed formulations of Bt bacteria onto crops as pesticides, but with the advances in the field of plant biotechnology, expression of genes encoding the production of the Bt insecticidal protein in plants began.<sup>1</sup>

(Id.)

7. Syngenta and Monsanto have been engaged in litigation over Bt corn since 1996<sup>2</sup> and, at one point in the late 1990's, there were ten to fifteen ongoing litigations between several players in the industry. (D.I. 512 at 222)

8. In March 1996, Monsanto sued several competitors including Ciba, Syngenta's predecessor, and Novartis for infringement of U.S. Patent No. 5,500,365, known as "the Fischhoff '365 patent," which claimed modified Bt genes with certain specific nucleotide changes in the so-called "240 region" of the gene. (D.I. 529 at 7) The Fischhoff '365 patent was invalidated in a jury trial by the prior invention of Dr. Barton and Mr.

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<sup>1</sup>The Federal Circuit addresses the technology involved in making codon modifications to a Bt gene to increase its expression in plants in great length in Mycogen Plant Science, Inc. v. Monsanto Co., 243 F.3d 1316 (Fed. Cir. 2001).

<sup>2</sup>Novartis, Syngenta's predecessor, was the party involved in the early actions.

Miller. Novartis and other defendants accused Monsanto scientist David Fischhoff of engaging in inequitable conduct by not disclosing the Barton application,<sup>3</sup> the same patent application that is the subject of the present inequitable conduct claims. (D.I. 512 at 173) The court, in the prior litigation, held there was no inequitable conduct. Mr. Drivas, with White & Case, was lead counsel for Novartis during this litigation. (D.I. 512 at 173)

9. Also in 1996, Plant Genetic Systems sued Novartis and others for infringement of its Bt patents based upon Novartis' sale of Bt11 corn (the "PGS Action"). At trial, Novartis did not assert Bt11 as prior art to the PGS patents. (D.I. 512 at 203) Mr. Drivas, with White & Case, again represented Novartis.

10. In 1998, Novartis sued Monsanto and others for infringement of U.S. Patent 5,595,733 ("the '733 patent"). (D.I. 512 at 223) A jury found the '733 patent invalid for lack of enablement. (D.I. 512 at 211-12)

11. A final pertinent litigation was initiated by DeKalb against Novartis and others. (D.I. 512 at 223) The trial involved the Lundquist family of patents, including U.S. Patent 5,484,956 ("the Lundquist '956 patent"). Mr. Drivas, with White & Case, again represented Novartis. (D.I. 512 at 221-22)

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<sup>3</sup>The Barton application is discussed in detail below.

**C. Patents in Suit**

12. The patents in suit are the '865 patent, the '185 patent, and the '100 patent.

13. The '100 and '185 patents are both entitled "Synthetic DNA Sequences Having Enhanced Insecticidal Activity in Maize" and, but for the claims, have identical specifications. The relevant claims are directed to Bt genes that have increased G+C content and improved expression in corn.

14. The '865 patent is entitled "Method of Producing Transgenic Maize Using Direct Transformation of Commercially Important Genotypes." The patent describes specific methods for producing fertile transgenic maize plants containing modified Bt genes. (D.I. 303 at 4) The claims at issue are generally directed to fertile transgenic corn plants, including inbred corn, containing a modified Bt gene that expresses a Bt protein at a level that kills ECB. (D.I. 309 at 6)

15. Defendant Monsanto has limited the inequitable conduct allegations to a discrete set of claims. These claims include claim 1 of the '865 patent, claim 11 of the '865 patent, claim 1 of the '100 patent, and claims 1 and 13 of the '185 patent. (D.I. 520 at 2)

**D. Prior Art References**

16. In the late 1980's and early 1990's, scientists at Monsanto, including Dr. Armstrong, were working to develop Bt

corn products that could control ECB ("the Monsanto work"). (D.I. 492 at 1017, 1018, 1030-31) The Monsanto scientists engaged in a collaboration with Dr. Fromm to achieve corn transformation in the early 1990's. (D.I. 492 at 1018)

17. Sandoz Corporation ("Sandoz") developed a separate Bt corn product in the early 1990's known as "Bt11." In 1989, defendant Monsanto provided Sandoz with a synthetic Bt gene that contained modifications from the native sequence. In 1991, Sandoz retained Hoechst to transform the synthetic Bt gene obtained from Monsanto into a corn plant. Hoechst performed the transformation procedure, produced regenerated plants and sent tissue samples from the regenerated plants to Sandoz in September 1991. One of these transformed corn lines eventually became known as Bt11:

18. U.S. Patent application number 07/390,561 was filed in August 1989 by Drs. Kenneth Barton and Michael Miller and resulted in U.S. Patent Application Pub. No. 2001/0003849 ("the Barton application"). The Barton application teaches modifying the Bt coding region using codons preferred by plants to increase their expression in plant cells. The Barton application disclosed an example which only modified the first 138 codons of the Bt gene, but the specification contained direction that the entire gene could be modified. (D.I. 494 at 1413-14) If modified in accordance with the specification, the

Barton application gene results in a G+C content greater than 60%. (D.I. 493 at 1241-43, D.I. 494 at 1413-14)

19. During the prosecution of the '100 and '185 patents, an international search report listed two EPO publications, EP0348348 and EP0374753 (the "Fowler EP applications"). The Fowler EP applications were in German, but disclose on their face the existence of two English-language U.S. counterpart applications. EP0348348 corresponds to Australian patent AU-B-36568/89 and relates to the expression of genes encoding proteinase inhibitors in plants to control insects. (D.I. 512 at 289-90) EP0374753 corresponds to Australian patent AU-B-46881/89 and relates to the expression of genes encoding insect toxins in plants. (D.I. 512 at 295-96)

#### **E. Parties Charged With Inequitable Conduct**

20. Monsanto accuses nine people of inequitable conduct in the prosecution of the '865, '100 and '185 patents.

21. Monsanto accuses White & Case LLP attorneys Dimitrios Drivas and John Scheibeler of withholding information concerning the Monsanto work, Bt11 and the Barton application. Mr. Drivas, a partner at White & Case LLP since 1992, has been practicing law for over 20 years and focuses on the area of intellectual property litigation. (D.I. 512 at 217-19) Mr. Scheibeler is an associate at White & Case LLP and has been working with Mr. Drivas for 16 years. (D.I. 512 at 134, 226)

22. Monsanto accuses Dr. Spruill with inequitable conduct with respect to the Fowler patents. Dr. Spruill was employed as in-house patent counsel at Ciba, Syngenta's predecessor, from the summer of 1992 to the summer of 1995. (D.I. 512 at 271-72)

23. Monsanto accuses Thomas Hoxie of inequitable conduct with respect to the Barton application. Mr. Hoxie was an in-house attorney at Syngenta involved in certain aspects of the 1998 litigation between Monsanto and Ciba.

24. Monsanto accuses Syngenta inventors Dr. Michael Koziel, Dr. Stephen Evola, Dr. Gary Pace, Ms. Martha Wright and Ms. Cindy Boyce of withholding information concerning the Monsanto work in connection with claim 1 of the '865 patent.

**F. Prosecution of the Patents**

25. The '865, '185 and '100 patents all issue from a related chain of applications. The '185 patent issued on June 13, 2000. The '100 patent issued on November 20, 2001 and is a continuation of the '185 patent. The '865 patent issued from U.S. Patent application no. 08/438,666 (the "'666 application") on June 11, 2002.

26. Mr. Hoxie and Dr. Pace had powers of attorney during the prosecution of the '100 and '185 patents and for the prosecution of the '666 application. (D.I. 520 at 9)

27. Neither Mr. Drivas nor Mr. Scheibeler were

involved in the prosecution of the '185 or '100 patents. (D.I. 512 at 139, 224-25)

28. In January of 2000, the files for the prosecution of the '666 application were transferred from in house staff to White & Case for prosecution. (D.I. 512 at 92) Mr. Drivas and Mr. Scheibeler were granted associate powers of attorney in the '666 application. (D.I. 512 at 93, 225)

29. On December 14, 2000, Mr. Scheibeler filed an Information Disclosure Statement ("IDS") with the Patent and Trademark Office ("PTO") in which he disclosed the prior art of which he was aware and believed might be material to the claimed invention. (D.I. 512 at 143) In the IDS, Mr. Scheibeler identified several patents, including the Lundquist '956 patent, and the Fischhoff '365 patent and its European counterpart. (D.I. 512 at 144-45)

30. Mr. Scheibeler met with the examiner in May 2001 and, after the meeting, submitted an amendment that included the proposed claim that eventually became claim 1 of the '865 patent. (D.I. 512 at 145-47) A month later, Mr. Scheibeler, at the direction of Mr. Drivas, filed another IDS disclosing the declaration of Steve Evola, the testimony of Michael Fromm from the '733 patent litigation, the testimony of Thomas Klevorn from the '365 patent litigation, the testimony of Michael Stephens from a separate litigation, and a Monsanto patent. (D.I. 512 at

151-52, 234)

**G. Inequitable Conduct Standard**

31. Applicants for patents and their legal representatives have a duty of candor, good faith, and honesty in their dealings with the PTO. Molins PLC v. Textron, Inc., 48 F.3d 1172, 1178 (Fed. Cir. 1995); 37 C.F.R. § 1.56(a). This duty is predicated on the fact that "a patent is an exception to the general rule against monopolies and to the right of access to a free and open market." Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co., 324 U.S. 806, 816 (1945). The duty of candor, good faith, and honesty includes the duty to submit truthful information and the duty to disclose to the PTO information known to patent applicants or their attorneys which is material to the examination of a patent application. Elk Corp. of Dallas v. GAF Bldg. Materials Corp., 168 F.3d 28, 30 (Fed. Cir. 1999). A breach of this duty constitutes inequitable conduct. Molins, 48 F.3d at 1178.

32. If it is established that a patent applicant engaged in inequitable conduct with respect to one claim, then the entire patent application is rendered unenforceable. Kingsdown Med. Consultants v. Hollister Inc., 863 F.2d 867, 877 (Fed. Cir. 1988). Additionally, "[a] breach of the duty of candor early in the prosecution may render unenforceable all claims which eventually issue from the same or a related

application." Fox Indus., Inc. v. Structural Pres. Sys., Inc., 922 F.2d 801, 803-04 (Fed. Cir. 1991).

33. A finding of inequitable conduct is "an equitable determination" and, therefore, "is committed to the discretion of the trial court." Monon Corp. v. Stoughton Trailers, Inc., 239 F.3d 1253, 1261 (Fed. Cir. 2001).

34. In order to establish unenforceability based on inequitable conduct, a defendant must establish by clear and convincing evidence that: (1) the omitted or false information was material to patentability of the invention; (2) the applicant had knowledge of the existence and materiality of the information; and (3) the applicant intended to deceive the PTO. Molins, 48 F.3d at 1178.

35. A determination of inequitable conduct follows a two step analysis. First, the court must determine whether the withheld information meets a threshold level of materiality. A reference is considered material if there is a substantial likelihood that a reasonable examiner would consider it important in deciding whether to allow the application to issue as a patent. Allied Colloids, Inc. v. American Cyanamid Co., 64 F.3d 1570, 1578 (Fed. Cir. 1995) (citations omitted); see also 37 C.F.R. 1.56(b)(2) ("[I]nformation is material to patentability when it . . . establishes . . . a prima facie case of unpatentability of a claim; or . . . refutes, or is inconsistent

with, a position the applicant takes in [o]pposing an argument of unpatentability relied on by the [o]ffice, or [a]sserting an argument of patentability."). A reference, however, does not have to render the claimed invention unpatentable or invalid to be material. See Merck v. Danbury Pharmacal, 873 F.2d 1418 (Fed. Cir. 1989).

36. After determining that the applicant withheld material information, the court must then decide whether the applicant acted with the requisite level of intent to mislead the PTO. See Baxter Int'l, Inc. v. McGaw Inc., 149 F.3d 1321, 1327 (Fed. Cir. 1998). "Intent to deceive cannot be inferred solely from the fact that information was not disclosed; there must be a factual basis for finding a deceptive intent." Hebert v. Lisle Corp., 99 F.3d 1109, 1116 (Fed. Cir. 1996). That is, "the involved conduct, viewed in light of all the evidence, including evidence indicative of good faith, must indicate sufficient culpability to require a finding of intent to deceive." Kingsdown, 863 F.2d at 876. A "smoking gun" is not required in order to establish an intent to deceive. See Merck, 873 F.2d at 1422. An inference of intent, nevertheless, is warranted where a patent applicant knew or should have known that the withheld information would be material to the PTO's consideration of the patent application. Critikon, Inc. v. Becton Dickinson Vascular Access, Inc., 120 F.3d 1253, 1256 (Fed. Cir. 1997).

37. Once materiality and intent to deceive have been established, the trial court must weigh them to determine whether the balance tips in favor of a conclusion of inequitable conduct. N.V. Akzo v. E.I. DuPont de Nemours, 810 F.2d 1148, 1153 (Fed. Cir. 1988). The showing of intent can be proportionally less when balanced against high materiality. Id. In contrast, the showing of intent must be proportionally greater when balanced against low materiality. Id.

38. Because a patent is presumed valid under 35 U.S.C. § 282, inequitable conduct requires proof by clear and convincing evidence. Manville Sales Corp. v. Paramount Sys., Inc., 917 F.2d 544, 551 (Fed. Cir. 1990).

#### H. Materiality

39. The court concludes that the Monsanto work and Bt11 are material. Mr. Drivas admits that Bt11 meets every limitation of claim 1 of the '865 patent. (D.I. 512 at 200) The jury concluded that Bt11 and the Monsanto work both anticipate claims 19, 20, and 21 of the '865 patent, which all depend from claim 1 of the '865 patent. (D.I. 487 at 5-6) Both Bt11 and the Monsanto work relate to modifying Bt genes to obtain ECB control. There is a substantial likelihood that a reasonable examiner would have considered the information important in deciding whether to allow the application to issue as a patent. Molins PLC v. Textron, Inc., 48 F.3d 1172, 1179 (Fed. Cir. 1995)

40. The Barton application is material. The Barton application teaches modifying Bt genes by using the most preferred codon at each position, similar to the '100 and '185 patents. The Barton application was not limited merely to tobacco plants, but rather applies to all plants. (D.I. 512 at 187-88) Furthermore, the jury presumably concluded that the Barton application discloses a Bt gene with a G+C content over 60%, which rendered the claims of the '865 patent obvious. The court concludes there is a substantial likelihood that a reasonable examiner would have considered the information important in deciding whether to allow the application to issue.

41. The Fowler applications are not material. The Fowler applications do not teach using the most preferred codon. (D.I. 495 at 1633) The sequences disclosed have G+C content of less than 50%. To the extent that the Fowler applications may teach using the most preferred codon, it is cumulative to the disclosed European Barton application, EP04328129.<sup>4</sup> See Tap Pharmaceutical Products, Inc. v. Owl Pharmaceuticals LLC, 419 F.3d 1346, 1351-52 (Fed. Cir. 2005). "If the information allegedly withheld is not as pertinent as that considered by the examiner, or is merely cumulative to that considered by the examiner, such information is not material." See Scripps Clinic & Research Found. v. Genentech, Inc., 927 F.2d 1565, 1582 (Fed.

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<sup>4</sup>EP04328129 is discussed in more detail below.

Cir. 1991).

**I. Intent to Deceive**

42. The court finds Mr. Drivas' and Mr. Scheideler's testimony credible in that they attempted to obtain the "strongest patent possible." (D.I. 512 at 209) The court finds their testimony credible because it would be unreasonable to believe, in the midst of such extensive litigation over Bt corn, that Monsanto thought its patent would not be litigated and eventually challenged. (D.I. 512 at 209, 227) Furthermore, the court finds that Mr. Drivas and Mr. Scheibeler, even though believing that the Monsanto work and Bt11 were not prior art, attempted to disclose this prior art to the PTO, as opposed to deceiving the PTO. The court finds no clear and convincing evidence that Mr. Drivas and Mr. Scheibeler had an intent to deceive the PTO and, instead, attempted to disclose as much prior art to the PTO as possible.

43. Mr. Drivas admitted to knowing of the Barton application. (D.I. 512 at 171-72) Mr. Drivas believed the Barton application was not material, but still disclosed the European patent application counterpart. (D.I. 512 at 191) This application disclosed the relevant concepts of using preferred codons and the preferred codon table used in the Barton application. (D.I. 512 at 192) The European application did not disclose the gene shown in the Barton application, but Mr.

Drivas also did not recognize the materiality of that sequence.<sup>5</sup> The court credits Mr. Drivas' testimony that he never considered but, instead, dismissed the Barton application. (D.I. 255) As a result, Mr. Drivas did not have the requisite intent to deceive the PTO regarding the Barton application.

44. Mr. Scheibeler testified that, during the prosecution of the '865 patent, he never read, had a copy of or knew of the Barton application. (D.I. 512 at 158-59) The court finds no clear and convincing evidence that Mr. Scheibeler had the intent to deceive the PTO in view of his testimony that he never considered the Barton application in connection with the '865 patent prosecution.

45. Mr. Drivas believed he had disclosed Bt11 to the PTO. (D.I. 512 at 236) Mr. Drivas directed Mr. Scheibeler to disclose Dr. Klevorn's testimony from a prior litigation involving Bt11. Mr. Drivas had no intent to conceal Bt11 from the PTO. (D.I. 512 at 237) In fact, Mr. Drivas did not even believe Bt11 qualified as prior art in the United States, as evidenced by his decision not to assert Bt11 as prior art against

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<sup>5</sup>Mr. Drivas testified that it did not occur to him that the Barton application was material prior art to the '865 patent claims. (D.I. 512 at 251) Mr. Drivas testified that it did not occur to him to go back to the segment in the Barton application and count its G-C content. (D.I. 512 at 186, 191) He further testified that the Barton application did not come to mind because the work was in tobacco, as opposed to corn. (D.I. 512 at 254)

DeKalb in the '956 patent litigation. (D.I. 512 at 237-38) That Mr. Drivas, even though believing Bt11 to be immaterial, disclosed the testimony of Dr. Klevorn, is further evidence of Mr. Drivas' lack of intent to deceive the PTO. Rather, Mr. Drivas attempted to get as much prior art as possible before the PTO in the prosecution of the '865 patent in order to obtain a strong patent.

46. Mr. Scheibeler was an attorney in the '733 patent case. In that case, Bt11 was discussed during testimony due to its involvement with a certain cell line at issue in the case. (D.I. 512 at 99) Mr. Scheibeler testified that the relevance of Bt11 to the '865 patent prosecution "didn't even cross [his] mind." (D.I. 512 at 99) Mr. Scheibeler testified that he disclosed all the prior art of which he was aware in connection with the '865 patent application. (D.I. 512 at 134) The court credits this testimony and finds no clear and convincing evidence of Mr. Scheibeler's intent to deceive the PTO.

47. Mr. Drivas did not have the intent to conceal the Monsanto work from the PTO. Mr. Drivas instructed Mr. Scheibeler to disclose testimony, from prior litigation, of Dr. Klevorn and Dr. Fromm.<sup>6</sup> (D.I. 512 at 198) While Mr. Drivas did not disclose the testimony of Dr. Armstrong, it was not a result of deceptive

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<sup>6</sup>Dr. Fromm's testimony was from the '733 patent litigation. Dr. Klevorn's testimony was from the '365 patent litigation.

intent. Rather, Mr. Drivas testified that Drs. Klevorn and Fromm, as opposed to Dr. Armstrong, were the relevant witnesses that "appeared in my mind." (D.I. 512 at 198) Mr. Drivas testified that he "wanted to get this Monsanto prior art invention story before the examiner." (D.I. 512 at 231) After reviewing the testimony of Dr. Fromm, the court concludes it adequately sets forth the Monsanto work and disclosure of Dr. Armstrong's testimony would be cumulative. The court concludes Mr. Drivas not only lacked an intent to deceive the PTO, but rather disclosed the Monsanto work.

48. Defendants fail to produce clear and convincing evidence that Mr. Scheibeler knew of, let alone had deceptive intent to conceal, the Monsanto work. Mr. Scheibeler was only marginally involved in the '733 patent litigation where Bt was discussed. (D.I. 512 at 136-37) The extent of his understanding of the litigation was limited to whether the '733 patent provided enabling disclosure, not "who invented what and when." (D.I. 512 at 138) The court finds no clear and convincing evidence of a deceptive intent by Mr. Scheibeler.

49. The court concluded that the Fowler applications were not material. Furthermore, the court finds no clear and convincing evidence that Dr. Spruill had an intent to deceive the PTO. In contrast, disclosing to the PTO the European search report and the foreign patent application shows a lack of intent

to deceive. Merely omitting to include the English translation does not amount to inequitable conduct. At most, this amounts to negligence by Dr. Spruill. "Even gross negligence, however, does not by itself justify inferring an intent to deceive." W.R. Grace & Co.-Conn. v. Intercat, Inc., 7 F. Supp.2d 425, 471 (D. Del. 1997) (citing Halliburton Co. v. Schlumberger Technology Corp., 925 F.2d 1435, 1442-43 (Fed. Cir. 1991)).

50. There is no evidence Mr. Hoxie knew of the Barton application. Nor is there clear and convincing evidence that Mr. Hoxie was involved in the prosecution of the relevant applications. Mr. Hoxie did not testify at the jury trial or at the bench trial for inequitable conduct. As a general principle, materiality and intent are balanced - a lesser quantum of evidence of intent is necessary when the omission or misrepresentation is highly material, and vice versa. See, e.g., GFI, Inc. v. Franklin Corp., 265 F.3d 1268, 1273, 60 USPQ2d 1141, 1143 (Fed. Cir. 2001). At the same time, however, there must be some threshold showing of intent to be balanced. The court declines to find inequitable conduct on a record that is completely devoid of evidence of an accused individual's intent to deceive the PTO. See Allen Eng'g Corp. v. Bartell Indus., Inc., 299 F.3d 1336, 1352 (Fed. Cir. 2002) ("Materiality does not presume intent, which is a separate and essential component of inequitable conduct." (quoting Allen Organ Co. v. Kimball Int'l,

Inc., 839 F.2d 1556, 1567 (Fed. Cir. 1988))).

The court does not have clear and convincing evidence of Mr. Hoxie's intent to deceive the PTO.

51. The court finds no clear and convincing evidence of the deceptive intent of the inventors.

52. Drs. Koziel and Evola attended a meeting with a scientist from Monsanto in October of 1991. This meeting disclosed to the scientists that Monsanto had plants in the greenhouse that had 100% kill of ECB. (D.I. 512 at 332)

53. Dr. Evola testified that he did not think what he learned of the Monsanto work was material to the invention.

(D.I. 512 at 66) The invention, as claimed when Dr. Evola was involved in the prosecution of the '865 patent, related only to specific corn transformation methods. It was not until May 2001 that Syngenta presented claims of the type allowed as claim 1 of the '865 patent. There is no clear and convincing evidence Dr. Evola was involved with the prosecution at this time and intended to deceive the PTO by withholding information.

54. Dr. Koziel testified that he did not remember the meeting. (D.I. 512 at 322) When examining the abstract from the meetings, Dr. Koziel testified that he did not know if native or synthetic genes were used and he was not sure if the testing worked and, therefore, it did not "get [him] too excited about its relevance to synthetic genes." (D.I. 512 at 324, 326) The

court finds no clear and convincing evidence that Dr. Koziel intended to deceive the PTO.

55. Ms. Boyce attended a presentation in 1991 by a Monsanto scientist and created a trip report. (D.I. 512 at 341-43) Ms. Boyce also received a copy of the published abstract from the meeting. The presentation and abstract discussed that Monsanto had obtained plants that both controlled ECB and expressed the Bt toxin. However, field trial data were not presented. (D.I. 512 at 352-53; 349-50) Ms. Boyce testified that, at this point, Syngenta did not consider itself behind Monsanto. (D.I. 512 at 344) Ms. Boyce did not disclose the trip report and stated that she did not even remember it. (D.I. 512 at 347) The court concludes that Ms. Boyce did not have knowledge of sufficiently detailed information to require disclosure to the PTO. See Life Techs, Inc. v. Clontech Laboratories, Inc., 224 F.3d 1320, 1326-27 (Fed. Cir. 2000) (inventor's failure to disclose information regarding work of rival researcher did not amount to inequitable conduct where inventors did not have knowledge of details sufficient to support a patentability rejection under § 102(g)).

56. Ms. Wright and Dr. Pace drafted the 1991 Annual Project Update Summary for Syngenta. (D.I. 512 at 71-72) This report stated that Monsanto had published reports on corn transformation and that field tests reveal successful

transformation with synthetic Bt genes. (D.I. 512 at 72)

57. Dr. Pace testified that he did not remember any documents supporting the statement made in the 1991 document.

(D.I. 512 at 72) Ms. Wright testified as to her belief that the information was not material. (D.I. 512 at 316) There is no clear and convincing evidence of any deceptive intent.

### **III. CONCLUSION**

For the reasons discussed above, Monsanto's motion that the '865, '100 and '185 patents are unenforceable due to inequitable conduct in the prosecution of the patents is denied. An order consistent with this memorandum opinion shall issue.